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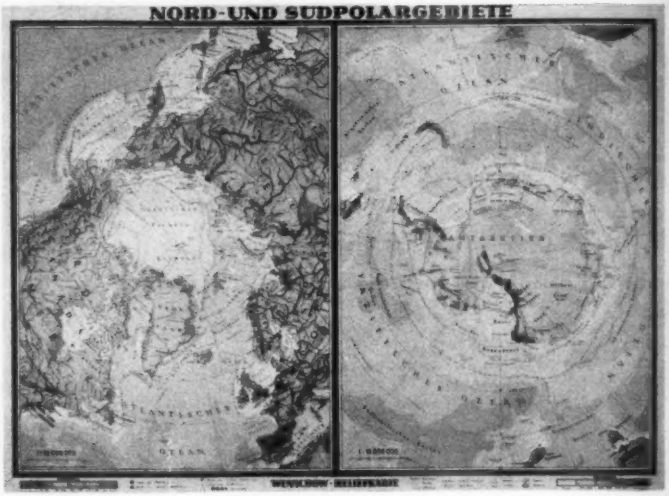

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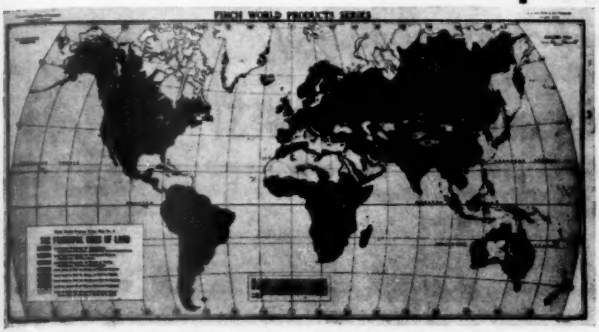

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THE CENSUS ON MULTIPLE-UNITS AND PLANTATIONS IN THE SOUTH

Merle Prunty, Jr.

Since 1870 the Bureau of Census has been confronted with complex problems in enumerating and reporting the characteristics of large landholdings in the South. From the geographers viewpoint these problems have not yet been fully solved. This brief discussion is addressed to an understanding of the problems and the nature of the resulting statistics.

Prior to the Civil War the Census reports enumerated any farm---plantation or otherwise---as a single operational unit, or farm. With the development of cropper and tenancy systems of land occupance after the close of hostilities, the Census started reporting each tenant or cropper tract within a plantation as a separate unit (or farm). One effect of this change in tabulation was to increase the number of "farms" reported for the South from 549,109 (1860) to 1,252,249 (1880), despite a decrease in farmland acreage during the two decades.[1] Consequently, for those states supporting plantations, the average sizes of agricultural operational units have been, and are, much larger than the average sizes of "farms" reported by the Census since 1870. Another effect was to remove the possibility of interpolating from enumerations the various patterns of spatial organization on the larger landholdings. These large holdings by no means disappeared; in the vast majority of instances they were the same proprietorships that had existed before 1860.

By 1910 the Census Bureau had recognized that the plantations had not disappeared and that something additional was needed to report them more adequately. "It would be highly desirable that . . . statistics should also be presented in which each plantation operated by tenants---provided the tenants are subjected to a considerable degree of supervision---should be treated as a unit among other farms."[2] Reasoning thus, Census adopted the following definition of a "tenant plantation" for the 1910 enumeration: "A tenant plantation is a continuous tract of land of considerable area under the general supervision or control of a single individual or firm, all or a part of such tract being divided into at least five smaller tracts, which are leased to tenants."[3] It was inferred that each tract was operated by one tenant. The *kinds* of tenancy involved, such as share-cropper, share-tenant, cast-rent or standing-rent tenant, were not distinguished. This is unfortunate for the geographer, because the kind of tenancy used on a plantation is related to the form of occupance that it supports. Landholdings were enumerated under this definition in 325 southern counties situated principally on the inner coastal plains. Why more counties were not included is not clear. A monograph titled "Plantation Farming in the United States," based largely upon the 1910 enumeration, was published by the Bureau of Census in 1916.

[1] *Thirteenth Census of the United States, 1910*, Vol. V: *Agriculture, General Report and Analysis.* Washington, 1913, p. 878.

[2] *Loc. Cit.*

[3] *Loc. Cit.*

Plantation reports were prepared as part of the 1940 Census of Agriculture but were not published. Facsimiles are available in a few southern university libraries. The definition employed differed somewhat from that used in the 1910 enumeration. Whereas the 1910 schedule did not specify the *kind* of tenant, the 1940 schedule specified that while five or more tenants had to be employed, *one* of these had to be a cropper if the unit was to be considered a plantation. Again, it was inferred that each tenant operated one tract of land within the plantation. Other classes of tenants also could be included *if* one cropper were present. Instead of specifying "continuous tract of land," the 1940 schedule included "continuous or closely adjacent tracts" operated as a unit from a single plantation headquarters--obviously a more realistic definition.[4] The 1940 schedule covered 372 selected counties in ten southern states. Curiously enough, Texas and Kentucky were not represented. More than 42 percent of the units reported were enumerated through office-constructed reports involving some interpretations and are, therefore, subject to certain reservations if utilized for mapping the distribution of the various forms of plantation occupance.

The 1945 Census of Agriculture included a "Special Report of Multiple-Unit Operations in Selected Areas of Southern States," based upon still another set of definitions.[5] By referring to the 1910 and 1940 enumerations of plantations as "compilation of data for plantations (multiple-units) . . . ," Census indicated that it considered the 1945 schedule to be a continuation of, or at least a successor to, its earlier plantation enumerations. Simultaneously, however, it specified that the 1945 special report is " . . . the first report of Census data on multiple-units based on the definition used herein, i.e.; two or more subunits, one or more of which is a cropper or tenant." Coverage included 567 counties in nine states, not including Florida, Kentucky, Tennessee or Texas. Of the 141,316 units included, 26.7 percent were reported through office-constructed reports.

The 1950 special report, the most exhaustive one to date, covered 902 counties comprising all or parts of 14 states. Only 8.1 percent of the units involved were reported through office-constructed reports. The criteria used for distinguishing multiple-units differ from those employed in 1945 in that a landholding was not reported as a multiple-unit unless, of the two or more subunits, all other than the home unit were operated by *croppers*. The 1945 criteria included both cropper and tenant-operated subunits.[6]

Several aspects of the plantation (multiple-unit) reports of the Bureau of Census are troublesome to the geographer. (1) The criteria employed to define plantations in the 1910, 1940, 1945, and the 1950 enumerations are not comparable, consequently the compilations and reports are not comparable. Census apparently has had difficulty deciding just what constitutes a plantation. (2) The areas encompassed by the four reports are not comparable; if one finds it necessary to assess changes in sizes, densities, products, or other characteristics of these landholdings, the best he can do is confine himself to those counties covered in all four reports, amounting to only about a third of the counties included in the 1950 special report. (3) Landholdings of the sizes included in the 1950 enumeration

[4] *United States Census of Agriculture, 1950,* Vol. V, Part 2, *Multiple-Unit Operations.* Washington, 1952, pp. 5–12.

[5] *United States Census of Agriculture, 1945. Special Report of Multiple-Unit Operations in Selected Areas of Southern States.* Washington, 1947, pp. vi-xiii.

[6] *United States Census of Agriculture, 1950.* Vol. V, Part 2, Washington, 1952, p. 12.

also occur in areas *not* covered. Some of the most famous and oldest plantation areas in the South have not been covered in *any one* of the four enumerations, having been excluded by definition apparently under the impression that a plantation does not exist unless cropper or tenant labor is present. However, the sugar cane plantations of southeastern Louisiana have been operated with cash-wage labor, for the most part, since shortly after the close of the Civil War. (4) Presence of a cropper, or even two, on a landholding does not make it a plantation. A plantation is a distinctive land occupance form which is recognized on the basis of not one but several criteria, the most fundamental of which is a large landholding.[7] Size sufficiently great to necessitate employment of five or more laborers, and management embodied in an individual disassociated from the labor function *per se*, are fundamental plantation characteristics. When we use the presence of one or more croppers and two or more subunits as base-criteria, as in the 1950 enumeration, we are simply enumerating farms that support cropper operations plus a home unit. Many plantations were included, but this writer's experience indicates that large numbers of small farms employing no more than one cropper also were included. In fact, many farms operated by an urban-employed owner, who also employed a cropper or two, were included. Classification of such units with plantations distorted the portrayal of both in Census reports. (5) If the 1945 and 1950 reports are to be thought of as *solely* reports on multiple-units, there seems to be no valid reason for restricting them to multiple-units using only one or, in 1945, two forms of labor employment. Multiple-units are operated with cropper, share-tenant, cash-rent, rent-in-kind, and cash-wage labor. There are certain types of multiple-unit agricultural operations in which the units under one management are *not* contiguous—the writer's family owns such an operation. Since many types of multiple-unit operations were excluded, the recent reports do not clearly portray either the multiple-unit situation or the plantation picture. Use of criteria which straddle several occupance forms, but which are exclusive to none, has defeated itself. (6) Multiple-units are not exclusively southern phenomena unless one assumes that only cropper operations are multiple-units, which would be unrealistic. There are hundreds of multiple-unit operations in northern and central Illinois alone, including both tenant cash-wage types of operations. A complete picture of multiple-unit agricultural operations obviously requires enumerations in all areas of the nation that support them.

Part-time farming reports of Census cause confusion when used in conjunction with plantation—multiple-unit reports. Any geographer concerned with part-time farming phenomena should treat these reports cautiously where southern states are concerned. The 1950 Census reported income received off-the-farm under part-time farming and, as noted, defined a cropper or tenant unit as a "farm." On most plantations croppers or tenants are employed for intraplantation work off their own units and are paid cash for such work, a normal part of the plantation routine that has been going on for decades. Road maintenance, building repair, fence construction, woodslot work, livestock care, and other miscellaneous tasks supply cash employment for the erstwhile tenant or cropper *off his individual tract* but *on the landholding*. Income so received is part of his farm employment—in fact, such employment frequently is stipulated in his annual contract. Census has reported income so derived as non-farm and tenants or croppers who report such income as part-time farmers, but to consider this income the result of employment in nearby industries or towns obviously is incorrect.

Insofar as plantations are concerned, something different in enumeration, definition and procedure would be useful. Ideally, the definition should distinguish

[7] Merle Prunty, Jr. "The Renaissance of the Southern Plantation," *Geographical Review*, XLV, No. 4, 1955, pp. 549–591, reference on p. 489.

cropper—tenant—cash wage employment on plantations from employment under the same systems on smaller holdings. Enumeration by *size-groups* of holdings is urgently needed. It should report labor system, farm equipment, crop, livestock, and other production separately for these holdings. Particularly it should give emphasis to cash-wage employment, since it is increasing rapidly. The internal geography and most of the functional attributes of plantations are closely related to labor-management conditions, hence enumeration that distinguishes among the several labor-management systems is especially critical to the geographer. On the other hand, multiple-unit operations are growing in numbers all over the nation. They, too, seem to deserve more accurate and separate enumeration in the future.

The significance of accurate enumeration of plantations and multiple-units in the South in terms of management analyses, fertilizer, livestock, and seed sales, and particularly farm equipment and machinery sales, is indeed great. Fortunately for the geographer, what he would like to see in the way of enumeration in this instance would also be more effective for the agricultural industries, and their manufacturer–suppliers, than is the present plantation—multiple-unit report.

TEAM RESEARCH IN MARKETING GEOGRAPHY

Saul B. Cohen

The application of geographic methods and techniques to the field of markets and their channels of distribution is of growing importance to the business world. During the past year, the Kroger Company of Cincinnati sponsored a project in marketing geography that may be of interest to many. This project was conceived and directed by William Applebaum, and involved the efforts of eight geographers, making investigations throughout the American heartland – from Chicago to Atlanta, and from Pittsburgh to Little Rock.

The uniqueness of the work lay not so much in the techniques employed, the type of data gathered, or the results achieved but rather in its overall scope and in its organization as team-research. Within a concentrated ten-week summer period, and with the help of dozens of interviewers, tabulators and cartographic aids, the project's geographers assembled and correlated a considerable mass of data, and made contacts with hundreds of persons concerned with broad urban problems as well as with marketing in particular.

There were four distinct phases to this team effort: 1) the drawing up of a broad, marketing geography inventory and library for eleven different metropolitan areas, 2) the trading area mapping and analysis of approximately one hundred retail stores, 3) the detailed analysis of approximately twenty large shopping centers, and 4) general studies of twenty-five outlying urban units (smaller cities, towns, and villages).

Although each geographer was fully responsible for organizing the study in the metropolitan areas assigned to him, ideas and techniques were readily exchanged through the company's team coordinator. This was in addition to joint sessions at the beginning and mid-way points of the project.

Some of the work, especially that of store trading area mapping, followed established precedents and formulae. Other phases of the project were broad and experimental. The accumulation of data, the uncovering of questions and problems, the search for what was significant in store location, and for specific patterns of distribution, was fundamental to the study. Both the Kroger Company and the geographers involved were interested in acquiring a *data* and an *idea* base for studying marketing geography. The refinement of this material for detailed locational analysis was left to subsequent studies.

The framework, and to a large extent, the theme for the project was metropolitanization. The central business district, the city proper, the suburbs and the surrounding urban satellite towns are all part of the same dynamic urban scene. Retail sales stores must conform to the changes constantly taking place, lest they not only become economically inefficient, but also produce imbalances in the expenditure of capital, transportation and human energies. In some instances, retail stores may even distort patterns of population distribution, for they can strongly influence the growth and shape of streets, and may do so contrary to long-range local settlement interests.

The food chains' interest in such problems, like that of geographers, planners, and others, lies in achieving a harmony of residence, manufacturing and commerce in the metropolitan area. A circulatory system that inadequately expresses population distribution will, in the long run, be as harmful to the store as to the residents of the city who are its consumers. In essence, *"What is good for the metropolis is good for the retail store."*

The most striking phase of the study was the impact of suburban expansion upon store location. Supermarkets are especially alert to population changes. Their moves to the suburbs have generally proven relatively easy and profitable, and much care has been taken to keep up with suburban growth. In the suburbs are found the middle and higher income groups, newer single-family homes, larger, easily counted families which are highly dependent upon the automobile.

However, in its haste to be the first to enter a new suburb, a store can easily be mislocated. For, while the first phases of suburban growth can be readily observed, the projection of long-range growth areas requires careful, objective analysis. Even if properly located, the suburban store may fail to catch the mood of its trading area characteristics. Suburbia is quite different from the homogeneous economic, religious or ethnic sectors of the crowded inner cities. To ascertain the income levels, shopping tastes, driving habits and other characteristics of suburban neighborhoods requires painstaking market analysis. In this context, the plotting of such distributions on maps can play a vital role.

Whereas the suburbs have received a great deal of attention from the major retail distribution channels, the same does not seem to apply to the residential portions of the inner city. To be sure, these have not experienced general population increases. On the other hand, they certainly have not become hollow cores. Some of the data gathered by the team indicated that food chain stores tend to neglect the inner city, and to over-focus their attentions on the suburbs. In congested in-town areas, more and more the abodes of incoming industrial workers, Negroes, and other minority groupings, the supermarkets have not kept pace in service or facilities with the needs and the demands of the population. They have, instead, left a large part of the field to the small grocery on the assumption that larger operations cannot be adjusted to the patterns of crowded localities. However, the inner city is changing. In part it is being rehabilitated. Income levels are rising. Greater numbers of shoppers are driving to stores despite the distances involved. Improvements in services, especially in parking and air conditioning, can not only pay for themselves in these crowded quarters, but can also make a valuable contribution to the general rehabilitation of our cities.

Outside of the metropolitan influence, the small towns, either self-contained or central place, present rather different problems to the major food stores. The importance of these towns seems to have decreased in the eyes of the large chains, which have closed down many of their older, town-square stores, in keeping with the trend towards larger sales operations. Often the intention has been to relocate these small stores in modern, "central place" shopping centers that are expected to spring up outside the town to service several communities. In some cases, however, the pull of the downtown location, with its neighborly flavor, has remained as strong as ever.

To find an adequate framework of reference for the analysis of these problems, an all-embracing inventory of source materials and maps was undertaken within key metropolitan areas. In a sense, the inventory can be described as a strategic index for store location. A wide variety of sources was used, and information was derived from both organized statistics and the general knowledge and experience of individuals contacted. Municipal, county, regional, state, federal, university, utility, banking, and other business sources were exhaustively covered.

It was by no means easy to evaluate the relative importance of the materials found. Too, there were problems of copying or extracting information, especially in map form, from various files. However, the results achieved make it clear that geographers are especially well qualified to conduct such an inventory, because it is in essence a description of the total urban landscape. Special emphasis was placed upon securing pertinent maps and air photographs, which are not often used with sufficient discrimination and accuracy in store location problems.

Perhaps the most striking aspect of the inventory was simply the wealth of material available to those who would seek it out. Too often business seems unaware of the excellent, basic studies made by various public, semi-public and private agencies, which can be directly applied to store location analysis. The systematic collection, classification and synthesis of these readily available materials can bring results that far exceed costs. This also demonstrates that business need not start from scratch in its store location programming.

Perhaps the most challenging and least satisfactorily treated phase of the study was the planned shopping center. No set formula for investigation was applied. Instead, the team was asked to study all possible phases of the twenty largest shopping centers within the assigned metropolitan areas. This included such varied aspects as size, services, shape, sites, traffic conditions, locational basis, trading area, management, etc.

The centers differed in many ways. Their shapes included linear, mall, L–, V–, terraced and plaza. Ratios of parking space to store selling space varied, as did site acreage and expansion potential. So did the groupings of store types within the centers. Locations on local roads, main roads or superhighways reflected the diverse roles of traffic arteries as links between the size and function of the center on the one hand, and its trading area on the other.

Although the data gathered were too limited to offer a basis for a functional classification of the planned shopping center, broad avenues for future study presented themselves. First, it may not be valid to speak of over-all shopping center trading areas. Food stores have more limited drawing power than department stores. Even within large regional centers, the influence of the department store, drawing upon customers from a ten-mile zone, may be limited in regard to the food store which attracts patrons from largely two to three miles away. Certainly many more studies of the comparative pull and shapes of the trading areas of individual stores within the center have to be made.

Second, there is a danger in locating shopping centers on regional superhighways when these centers are not sufficiently large and lack drawing power because of the absence of certain services. Such centers remain neighborhood in scope, or at best service only two or three small communities. Their location on a major turnpike creates an unnecessary strain on traffic. Zoning ordinances might well be applied, therefore, to the size as well as the nature of commercial activity.

Another complicating factor is parking. The use of upper and lower levels may add space, but place certain parts of the center in an adverse position. Locating the major department store in front of the rest of the buildings, partly blocking the view of the other stores can also throw the center into imbalance physically and financially.

Certain planned shopping centers have become much more than simply retail sales outlets. They include professional offices, businesses (like insurance companies), and recreation buildings. In one instance, a regional center is attempting to attract county buildings to its site. This trend, enhancing the regionality of the shopping center, may help to preserve the surrounding villages and towns as residential communities by supplying them with a new central place for trade, business and administration. It should be noted that some industrial parks have also added business office functions, so that both shopping centers and industrial parks are beginning to share in providing suburban office facilities. Competition for parking spaces between employees and customers becomes greater under such circumstances.

Planned shopping centers are growing rapidly throughout the country. In many metropolitan areas, this growth has not yet caught up with the expansion of population in the suburbs. Under such circumstances, site selection processes rarely meet competitive testing. Often very crude methods of finding sites have produced financially successful centers. In other areas, however, such as Cleveland, where the number of planned shopping centers per capita is the highest in the United States, hit or miss methods of selection can be disastrous. Competition between centers is acute, and advantages of location can spell the difference between success and failure. As time goes on, shopping centers will have to succeed on their locational and service merits – not on their simple existence. It was a source of surprise to see multi-million dollar centers still being planned without a really scientific trading area analysis and a genuine inquiry into the types of services needed by the trading area. This sort of study clearly lends itself to geographic methodology, for the core of shopping center surveys is distributional patterns. Geographers interested in urban studies can certainly find shopping center research interesting and vital.

The 1955 Kroger team research project in marketing geography satisfied its sponsors, for it helped provide a base for a more scientific store location program. The project equally satisfied the participating geographers by providing summer incomes, the opportunity to gain detailed knowledge of various parts of the country, contact with departments of geography in diverse metropolitan areas, and finally, a challenge to put our specialized skills and knowledge to work in a manner understood and appreciated by the business world.

WHAT ONE GEOGRAPHER WANTS FROM CLIMATOLOGY

Forrest R. Pitts

Six years ago in this journal Stephen B. Jones posed the question: "What Does Geography Need from Climatology?" This is still a live question. The writer's teaching and field experience have brought him to a point of irrepressible dissatisfaction with climatology as presently taught in survey courses from generally available climate textbooks. This dissatisfaction stems from what is left out of, rather than what is included in, the well-written and painstakingly assembled texts now used in weather-and-climate courses. It is suggested that there is growing need for a text that, covering meteorological processes simply by a reading list, emphasizes with abundant map examples the climatic factors involved in understanding the *distribution* of natural vegetation, crops, landforms, and important regional weather conditions directly affecting the regimens of non-agricultural human activities.

It is well known among geographers that the Koeppen and Miller systems of climates are based in part upon the growth limits of coniferous trees and date palms, but even in the United States little attention in climates courses and texts

is paid ordinarily to the equally important distributions of the oak and cottonwood. In the USSR, various species of deciduous trees have limits varying from the longitude of the Baltic states to that of the Urals. Though these various tree boundaries mark areas of decreasing rainfall and increasing continentality eastward, the area in texts is generally lumped together in one climatic type——and most students are unaware of the vegetational gradation within the mixed and deciduous forest belts.

Boundaries of many climatic subtypes are marked by vegetational changes, but often no statement is made giving the names of the plants concerned. Surely it is as stimulating to a student to know that area X is dominated by sagebrush as it is to remember that it is a zone of subsiding adiabatically-warmed anticyclonic air.

Students of climate as well as those in economic geography are frequently confused by the disparity between areas where a crop such as maize does best (the "corn belts") and where it will mature if planted (equator to 60° N. or S. in places). For explaining the "belts" there should be stated and mapped for each major crop the E–W–N–S limitating conditions for high productivity——whether these be annual average conditions, two-or-three month average conditions, or primarily edaphic relations. To explain the wider distributions of crops a good deal of attention should be paid to what Klages, in his *Ecological Crop Geography*, calls the "remainder index" of individual crops. We need to know where and under what conditions averages are limits, as well as when and under what conditions extremes are limits of crops. This applies also to limits of natural vegetation.

Humid and semi-humid erosion forms in areas now desert, and anomalies of the same sort in other areas suggest major climatic changes in the past ten millenia. What is the distribution of such anomalous forms? What was the climate like, say, at the end of each of the past ten millenia? What can climatology tell us about the present day and past limits of arid, humid, tropical and arctic weathering types? Surely the information, at least an educated guess, exists in the professional literature; let's get this sort of thing into our climatology texts.

Both physical and human geography would be enriched by discussions and map series pointing out anomalies and extremes of various distributions. As an example of the former I have in mind Miller's stimulating comment on the paucity of mammalian forms in the *Aw* area of South America, and his suggestion that it may be due to discontinuity in the *Aw* distribution on that continent. Maps of this sort that would be of immediate interest to students might include, for example: freezing and thawing dates on navigable rivers in Russia and Alaska; maps of areas affected (when and how often?) by foehn, buran, chinook, and other winds; river regimen maps, with flow and flood data where available; and cloudiness maps, with notes on the effect of cloudiness on distribution and productivity of crops that are sun-loving.

Much of the suggested material has become available in the last decade after the authors wrote the texts from which our generation studied. The sort of text here envisioned, in addition to such material as would aid the budding plant geographer, the bewildered economic geographer, and the burdened geomorphologist, should include:

a) an annotated bibliography of climatic (not meteorological) literature, including mention of maps that may have been too expensive to reproduce in the text;
b) copious climatic tables, each with a note on the periods of observation that the data represent; and
c) world-wide maps of uni-form or uni-type vegetational distribution, with enlarged inserts on border or transitional areas.

The obvious comment on this proposal might be: "If you want such a book, why don't you write it?" My answer would be that it is beyond my present competence; and that a man may want a Cadillac without being able to build one.

OZALID PRINTS FROM MAPS WITH ZIPATONE

D. E. Christiansen

Geographers at Florida State University desired to have maps reproduced on a university operated Ozalid machine, and found that their use of this process was limited to the making of line maps and maps entirely hand drafted. Maps on which Zipatone is used could not be reproduced because the wax adhesive would melt and discolor the paper, and the Zipatone would slip or come off onto the hot roller in the machine. An effort to make and reproduce a thin paper sun print of a zipatoned tracing also proved ineffectual.

After several experiments, a system was devised by which maps with Zipatone patterns *can* be reproduced in this type of machine. To do this, simply draft and Zipatone the original on tracing cloth and attach the tracing to a piece of heavy gauge plastic when it is run through the reproducing machine. The Zipatone will not stick to the plastic or slip, and the plastic sheet can be reused.

The good quality of Ozalid prints and their low cost make this technique adaptable to the reproduction of some thesis maps and maps for classroom use. Inking qualities of Ozalid papers are satisfactory for general uses; however, mechanical lettering pens (such as Leroy and Wrico) scrape a film from the paper's surface and, consequently, India ink takes unevenly. This might limit use of the process in the reproduction of some base maps.

PAYMENTS TO DIVISIONS

On July 30, 1956, payments were made to the Divisions in accordance with the directive of the Council adopted on April 2, 1956 in Montreal. The total payment amounted to $759, of which $590.03 was remitted after the cost of Central Office services was deducted.

The following letter was sent to each chairman with the attached report on membership:

> "The Council on April 2, 1956 adopted the following motion: 'that allotments to Divisions be figured on the basis of paid memberships as of December of each year and at the rate of 50¢ for each member, associate member, student, or married couple.'
>
> "The enclosed check in the sum of $_____ represents the Association's payment based on paid membership in December, 1955.
>
> "The attached chart has been prepared to provide you with comparative data on the growth of the AAG. The figures for 1956 are tentative as of July 24, 1956.
>
> "At the meeting of the Division Chairmen in Montreal, it was suggested that the chairmen should write personal letters or contact in some other manner, the people in their divisions that are being dropped for non-payment of dues. The enclosed 3 x 5 cards contain the names, last known address, and status (Associate or Member) for the people in your division that apparently have not paid their 1955 dues.
>
> "In connection with the Membership Drive, you may be interested in knowing that since the Montreal meeting in April, 87 applications for membership have been received: 19 qualified as Members; 53 as Associate Members; and 15 applications are pending (until qualifications can be clarified). An unofficial tally reveals a membership of 1,846. If the current rate of increase continues, the goal of 2,000 appears to be a mathematical possibility.
>
> "If you need additional posters and application blanks, the Central Office will be glad to send them to you."

The report on membership is as follows:

Division	Dec. 1954	Dec. 1955	July 1956
New England – St. Lawrence	103	105	124
New York – Ontario	71	78	84
New York Metropolitan	115	125	149
Middle Atlantic	364	375	436
Southeast	109	103	113
East Lakes	151	153	186
West Lakes	250	232	275
Great Plains – Rocky Mts.	60	81	87
Southwest	70	76	81
Pacific Coast	168	190	218
No division affiliation	–	46	46
Overseas	–	32	32
Applications pending			15
Totals	1,461	1,596	1,846

SUMMARY OF RECEIPTS AND DISBURSEMENTS

December 16, 1955 to June 30, 1956

RECEIPTS		
Dues	$11,154.87	
Annals	1,270.07	
Professional Geographer	576.73	
Nature of Geography	173.58	
American Geography	736.18	
Gift to Atwood Fund	1,744.00	
Income from Securities	633.43	
Sale of Security	500.00	
Miscellaneous	29.48	
Total Receipts		$16,818.34
DISBURSEMENTS		
Annals	$ 6,479.92	
Professional Geographer	1,418.28	
Nature of Geography	26.64	
American Geography	2.00	
Central Office	4,836.28	
Treasurer's Bond	125.00	
Auditor	100.00	
Honors Committee	12.25	
Program Committee	364.00	
Membership Committee	8.00	
Handbook–Directory Committee	47.43	
Travel	1,125.96	
Research Grants	1,000.00	
American Council Learned Societies	60.00	
American Society of Planning Officials	10.00	
Miscellaneous	26.81	
Total Disbursements		$15.652.57

1957 CINCINNATI MEETING

Introductory announcements of the program for 1957 appeared in the May 1956 issue of *The Professional Geographer.* These were followed, in the July issue, by a statement of the policy and procedure of selecting papers by the Program Committee. Prospective contributors should note carefully the rules there published governing the exact form of abstracts and the provision that *eight* (not four) copies of the abstract are to be submitted.

The AAG program is to include: several plenary sessions; parallel sessions based on topics in systematic and regional geography, partly arranged by appointed chairmen and partly submitted voluntarily; a number of informal group sessions on topics of current interest to the geographer; and one or two field trips.

The *deadline of December 1* for the receipt of abstracts must be rigorously adhered to in order to receive proper attention by the Program Committee and meet publication deadline in *The Professional Geographer.*

Committee procedure has now advanced to the point where it is selecting chairmen for the following topically arranged programs: The Old Northwest, Tension Areas of the World, Cultural Geography, Causality in Geography, and Geophysical Research. Members wishing to contribute to any of these programs should notify the chairman of the Program Committee immediately.

The Program Committee has also been reviewing some thirty-five informal discussion program suggestions submitted both last year and this year. Members are invited to present additional topics. These should be in the hands of the chairman by *October 15* so as to allow for proper consideration by the Program Committee and the appointment of chairmen to head the several sessions.

Alfred H. Meyer, Chairman
Program Committee
Valparaiso University, Valparaiso, Indiana

EXECUTIVE COMMITTEE MEETING

The Executive Committee of the Council will hold its regular fall meeting at the Library of Congress on Saturday, October 27, 1956.

REGIONAL DIVISIONS

NEW YORK–ONTARIO DIVISION

The Annual Meeting of the New York–Ontario Division will be held with the New York State Geographical Association on Friday and Saturday, October 26–27, at the New York State College for Teachers at Albany. The theme of the meeting will be *The Hudson–Mohawk Region in Transition.* Howard H. Flierl is chairman of the Meeting Committee. Members and friends of AAG and NYSGA will receive further details soon. Circle the dates on your calendar and plan to attend.

WEST LAKES DIVISION

The Annual Meeting of the West Lakes Division of the AAG will meet in Urbana, Illinois on October 19 and 20, 1956.

Tentative plans call for two afternoon sessions on Friday October 19 (starting at 1.30 p.m.), followed by dinner and a geographic lecture open to the public at 8 p.m. On Saturday morning two more sessions will be followed by the annual business meeting.

On Saturday afternoon the sessions will close at the end of a field trip in the Urbana area at about 5 p.m.

Please reserve these dates and come prepared to add your bit to some informal discussions. You will get the complete program in the fall.

Notices of change of address and inquiries about back numbers should be sent to the Central Office, Association of American Geographers, Library of Congress, Washington 25, D.C. Items for inclusion in *The Professional Geographer* should be sent directly to the Editor *before the 25th of the month preceding the publication.* It is asked that you send original copy rather than carbon.

ANNOUNCEMENTS AND REPORTS

100TH ANNIVERSARY OF PETERMANNS GEOGRAPHISCHE MITTEILUNGEN, GOTHA

The Geographisch-Kartographische Anstalt (formerly Justus Perthes) in Gotha, East Germany, celebrates the centenary of its publication this year. Besides the usual number of articles, illustrations, maps, book reviews, geographical statistics, and news of cartography (including "Sowjetkartographie"), the anniversary issue contains an article on the founder, August Petermann, and the history of the Institute by the editor, Dr. Ernst Neef, and an essay on Heinrich Berghaus and Alexander von Humboldt by Dr. Hanno Beck, with portraits of these three leading personalities in the field of German 19th century geography.

---Christiane S. Whiteside

ANNUAL MEETING OF THE NATIONAL COUNCIL OF GEOGRAPHY TEACHERS

All geographers and others interested in geographic education are invited to attend the annual meeting of the National Council of Geography Teachers in Atlantic City, New Jersey on November 23–24, 1956.

Room reservations can be obtained by addressing the Claridge Hotel, Atlantic City, N. J., headquarters for the meeting. Persons not members of the NCGT pay a one dollar registration fee at time of registration.

The theme of this program is *Improving Geographic Education to Meet America's Needs.* Main program sessions include:

Friday morning, November 23 – *Facing the Challenges*

Geographic Education and the Business World ----- J. Warren Nystrom, Chamber of Commerce of the United States

Impact of Air Power on Geographic Education ---------- H. F. Raup, Kent State University

Improving the College Training of Geography Majors – Henry J. Warman, Clark University

Student's View: "What Can Geography Do For Me?" -------- A panel presentation by five high school and college students

Friday afternoon, November 23 – *Improving the Use of Globes and Maps*
Main speaker: Carl H. Mapes, Rand McNally and Co.

SECTIONAL MEETINGS

A. *Globes and Maps — How to Choose and Use Them —*
This problem attacked by discussion groups particularly interested and experienced at various levels: (1) college, (2) secondary, (3) elementary.

B. *Resource-Use Education —*
Papers on aspects of Conservation Education by Sigismond deR. Diettrich, Ruben L. Parson, and Edward A. Ackerman.

C. *Communities on Three Continents —*
Papers by Elizabeth Eiselen, George W. Hoffman, and Daniel Jacobson.

Friday evening, November 23 — *Annual Banquet*
Address: *United Nations Geopolitical Concepts* —— Benjamin Cohen, Under-Secretary of the United Nations

Saturday morning, November 24 —
Geographic Education in Integrated Programs — (Joint session with the National Council for the Social Studies)

Saturday afternoon, November 24 — *Field Trips*
(under direction of A. K. Botts, John Brush, and Marvin Creamer)

The National Council of Geography Teachers invites your attendance and participation.

NAS–NRC FOREIGN AREA PROGRAM, 1957

The National Academy of Sciences–National Research Council will continue in 1957 the program of assistance in geographical field work in foreign areas announced in the November 1955 *Professional Geographer.* Application for support of field work to start before April 1, 1958 must be submitted prior to December 1, 1956 to Foreign Field Research Program, Division of Earth Sciences, 2101 Constitution Ave., Washington 25, D.C. Notice of action on applications will be sent not later than January 30, 1957.

SOCIETY OF WOMAN GEOGRAPHERS FELLOWSHIP

The Society of Woman Geographers is offering a Fellowship of $1,500 in addition to tuition to a young woman for graduate work in geography at the University of Chicago in the academic year 1957–58. Eligibility requirements include a BA degree or equivalent and admissibility to the University of Chicago Divisions of Physical Sciences or Social Sciences. Application must be made on the University form, must specify the SWG Fellowship, and must be received by February 15, 1957. The award will be made about April 1. Further information and application forms may be obtained from Admissions Counselor, Administration Building, University of Chicago, Chicago 37, Illinois.

POSTDOCTORAL STUDY IN STATISTICS

Awards for study in statistics by persons whose primary field is not statistics but one of the physical, biological, or social sciences to which statistics can be applied are offered by the Committee on Statistics of the University of Chicago. The awards range from $3,600 to $5,000 on the basis of an eleven month residence. The closing date for application for the academic year 1957–58 is February 15, 1957. Further information may be obtained from the Committee on Statistics, Eckhart Hall, University of Chicago, Chicago 37, Illinois.

XVIII INTERNATIONAL GEOGRAPHICAL CONGRESS

AAG members who attended the recently concluded XVIII International Geographical Congress at Rio de Janeiro report that it was highly successful and well attended, and that the Organizing Committee and Secretary General deserve real praise for both efficiency and thoughtfulness.

More than 1,000 participants registered from at least 30 countries, including 100 or more from the United States who comprised the largest visiting group.

New officers include Hans W:son Ahlman, President; Hilgard O'Reilly Sternberg, First Vice President; L. Dudley Stamp, Karl Troll, Chauncy Harris, Fumio Tada, and Hassan Awad, Vice Presidents; Hans Boesch, Secretary. Four new countries were admitted to the International Geographical Union – Ethiopia, Hungary, Iceland, and the USSR. The XIX Congress will be held in Stockholm in 1960, and will be organized by Sweden, Norway, Denmark, Iceland, and the Netherlands.

All present Commissions were continued and four new ones established on, respectively, humid tropics, applied geomorphology, population mapping, and national atlases.

It is understood that the United States delegation is preparing a report on the Congress, including the paper-reading sessions and the field trips.

AVAILABLE NOW

AMERICAN GEOGRAPHY: INVENTORY AND PROSPECT

edited by

Preston E. James

and

Clarence F. Jones

with

John K. Wright

as consulting editor

This book was prepared by a committee of outstanding geographers and published by Syracuse University Press for the Association of American Geographers.

Price $6.00

.....Copies of AMERICAN GEOGRAPHY: INVENTORY AND PROSPECT

$..... enclosed. Name.....

Address.....

.....

MAIL TO: Central Office,
Association of American Geographers,
The Library of Congress,
Washington 25, D. C.

Make checks payable to the ASSOCIATION OF AMERICAN GEOGRAPHERS

NEWS FROM GEOGRAPHIC CENTERS

THE OHIO STATE UNIVERSITY

New appointments to the Department include Asst. Prof. Jack R. Villmow, Ph.D. University of Wisconsin 1955, who taught at Wellesley College during the past five years and is spending the summer in Europe. Instructor Frederick J. Simoons, Ph.D. University of California 1956, has had extensive field experience in Africa and will teach the course on that continent.

During the academic year 1955–56, the Departments of Geography, History, Political Science and Speech participated in an educational experiment with U. S. Air Force R.O.T.C., whereby civilian teachers from these University Departments taught certain Air Science courses. In the Winter Quarter John R. Randall of the Department of Geography taught the advanced course on Military Aspects of World Political Geography. This cooperative and experimental program is planned to extend over a three-year period and is made possible by allocations from the Mershon Fund of the University. The donor having provided that part of the income could be used for the education of the citizen-soldier, it can be used to employ substitutes for regular members of the faculty who are teaching in the R.O.T.C. program. Howard J. Critchfield of Western Washington College of Education at Bellingham substituted for Professor Randall in the Winter Quarter 1956.

Derwent S. Whittlesey of Harvard University came to Columbus in April to consult with Professor Randall and the Air Force officers on the content and organization of the course on the Military Aspects of World Political Geography. On April 24–26 Guy–Harold Smith and John R. Randall were at the Air University, Maxwell Air Base, Alabama, for consultations on the Air Force R.O.T.C. program at the University.

The Board of Trustees has approved the establishment of a Natural Resources Institute. Charles A. Dembach, the Director, was formerly in the Department of Zoology and Entomology and during the past five years directed the Wild Life Division of the Ohio Department of Natural Resources. Guy–Harold Smith is a member of the Committee on Education and Research.

Eugene Van Cleef was recently appointed Ohio Representative (Regent) of the Findlandia Foundation, a national organization for the advancement of cultural relations between Finland and the United States. He continues as a member of the Geography Committee, Advisory to the Office of Naval Research.

Alfred J. Wright is revising his *Economic Geography of Ohio,* Ohio Geological Survey Bulletin 50. The second edition of his *United States and Canada; A Regional Geography* was published in April. He and Henry L. Hunker have begun the last phase of the survey of Ohio manufactures established since 1940. The survey, supported by grants from the Ohio State University Development Fund, will be concluded soon and the results published.

Henry L. Hunker, advanced to assistant professor effective October 1, is Chairman of the East Lakes Division of the AAG and Treasurer of the Central Ohio Chapter of the American Meteorological Society.

Simo Heikki Laurila, regularly employed as a Research Associate in the Institute of Geodesy, Photogrammetry, and Cartography, served in the Department as a Lecturer in the Spring Quarter and taught the course on Map Projections.

John R. Randall, Lt. Col. in the U. S. Army Reserve, has been Director of the Military Intelligence Department of the U.S.A.R. School in Columbus during the past year.

The University's second Institute under the auspices of the Committee on International Studies, this one on the Middle East, was held in the summer of 1956. John R. Randall, co-chairman with Professor Sidney N. Fisher of the Department of History, taught his course on the Geography of the Middle East and participated in a joint seminar on the area. The first Institute, on the Far East, was held in 1955 with Lawrence A. Hoffman offering the course and participating actively in the program.

Fred A. Carlson is studying commerce and industrial developments along the Ohio River, supported by the Ohio State University Development Fund. He plans to revise his *Geography of Latin America,* now in its third edition.

Forrest L. McElhoe Jr., an instructor during 1955–56, has a similar position at the University of Kentucky.

Paul P. Vouras, an Assistant and recent Ph.D., has joined the faculty of the New Jersey State Teachers College at Paterson.

Robert M. Basile was on active duty with the U. S. Navy in Washington in June, attending lectures and discussions on the Military Sea Transportation Service of the Navy. In the summer of 1955 his reserve duties included a Mediterranean cruise.

AMERICAN GEOGRAPHICAL SOCIETY

The American Geographical Society announces two retirements and two new appointments to its staff:

Dr. John K. Wright, Director of the American Geographical Society from 1938 to 1949, and a member of its staff since 1920, retired on July 1. Dr. Wright's many contributions to geography — and particularly to the history of geography — are well known. In recent years these have been recognized by the bestowal of several awards, among them the *Outstanding Achievement Award* of the Association of American Geographers in 1956.

Mr. Raye R. Platt, who joined the Society's staff in 1921, and who was associated for many years with the program of the *Millionth Map of Hispanic America,* also retired on July 1. During his long service with the Society, Mr. Platt edited a number of books in the *Special Publications and Research Series.* Most recently he has directed the preparation of a series of geographical handbooks on strategic countries, sponsored by the Office of Naval Research.

Dr. David Lowenthal, formerly chairman of the Department of Geography at Vassar College, and Dr. William Warntz, assistant professor of economics and geography at the Wharton School of Finance and Commerce, University of Pennsylvania, have accepted appointments as research associates on the staff of the Society as of July 1. Dr. Lowenthal will assume his editorial and research duties upon completion of a Fulbright grant for study in the West Indies. Dr. Warntz has initiated research in mathematical geography in association with Mr. O. M. Miller of the Society's staff. Both appointments were made possible through a grant from the Ford Foundation which provides for young scientists "to supplement, and provide continuity in, the services of the Society and to maintain the specialized knowledge of the senior members of the staff."

INDIANA UNIVERSITY

Beginning in September Dr. John Fraser Hart is serving as Acting Chairman of the Department of Geography pending appointment of a successor to Dr. Otis P. Starkey who asked to be relieved of his administrative duties. Last summer Dr. Hart continued his field work in rural England.

Major publications during the year were *The British Moorlands* by Dr. Hart, and the Third Edition of *Introductory Economic Geography* of Which Dr. Starkey is a co-author. Dr. Pounds' book on the steel industry of Western Europe is in press.

Dr. Norman J. G. Pounds is spending a sabbatical year in Europe, continuing his work on the iron and steel industry. He hopes to do considerable field work in Silesia. His teaching duties will be taken over by Visiting Lecturer A.A.L. Caesar from St. Catherines College, Cambridge University.

Dr. Visher, on sabbatical during the spring semester, reports considerable progress on his book on Indiana.

Dr. Jack C. Ransome is working on a survey of Indianapolis for the Indianapolis Planning Commission.

The Department offered a series of 12 television programs last winter. Most of the staff participated in at least one of the presentations. A television course in World Geography will be offered by Dr. Starkey over WTTV beginning September 18th.

Yi-Fu Tuan, from the University of California (Berkeley), joined the staff last February. Albert J. P. McCarthy of Syracuse University has been appointed Lecturer to replace R. Louis Gentilcore, now at Los Angeles State College.

PERSONAL NEWS

H. PHILLIP BACON, University of Pittsburgh, on leave for this school year, will supervise the graduate program in geography at Teachers College, Columbia University.

DR. RICHARD J. HOUK, on leave from De Paul University, is in Angola on a Foreign Area Training Fellowship from the Ford Foundation studying the economic and cultural consequences of Portuguese development of that colony. After eight months there he will spend the rest of the year in Portugual and in other territories in West, South, and East Africa. This research continues his special interests in Africa and the Iberian peninsula. The Portuguese government will publish a translation of his paper, *Some Significant Aspects of the Portuguese Fisbing Industry*, that was presented at the Montreal meetings.

ELINOR BRZENK, Wayne University and Ph.D. candidate at Northwestern University, will substitute for Dr. Houk at De Paul.

ALBERT G. BALLERT recently became Director of Research for the Great Lakes Commission, an interstate agency with representation from Indiana, Illinois, Michigan, Minnesota, Pennsylvania, and Wisconsin. The Commission has begun the compilation of bibliographies and will study various problems relating to the Great Lakes, the first being the organization and administration of the principal lake ports.

HUEY LOUIS KOSTANICK, University of California, Los Angeles, received a grant for six weeks of travel in Poland and Czechoslovakia during the summer. He is one of a number of American scholars visiting Eastern Europe with support from the Carnegie Foundation.

FRANCIS E. ELLIOTT has left the Hydrographic Office of the United States Navy to become Professor and Head of the Geography Department at Butler University.

NEW PUBLICATIONS

The Big Bend Country. Virginia Duncan Madison. University of New Mexico Press. Albuquerque. 1955. xiv and 293 pp. $4.50

The author did not have to "capture" the spirit, the color of this *terra* still rather *desconocida*, she is practically a part of it. Born on a West Texas ranch, a graduate of the Big Bend's Sul Ross College, a friend of many leading figures in the region, a gifted writer and an indefatigable and painstaking researcher, she has produced a regional characterization at once *simpatico* and frankly honest.

The region's history and legends are made the well documented vehicle by which one arrives at a considerable measure of understanding of the Big Bend and its sequent occupance. This, a good trick when one can do it, produces an entertaining as well as informative book. There is a small map on the title page, but geographers will want something better at hand as they read. While the selection of photographs is for the general reader, two or three are both artistic and geographically revealing.

Our Vanishing Shoreline. National Park Service. U. S. Dept. of the Interior, Washington 25, D.C. 36 pp. 3 maps. Free

A report on a survey of remaining areas of Atlantic and Gulf shoreline that are suitable for public use reservation. The survey covered nearly 3,700 miles of coastline, first by air, then on the water and the ground. Only 6½ percent of this coastline – 240 miles, is in State or Federal ownership for public recreation, and less than half of this is beach frontage. If public access to any of the remaining beach frontage is to be preserved it must be done soon. The report identifies and shows on the three sectional maps 54 areas with recreational potential that could be reserved for public use.

The Agricultural Development of Colombia. International Bank for Reconstruction and Development. Washington. 1956. xii and 367 pp. Multigraphed.

This is the report of an Agricultural Mission organized by the International Bank at the request of Colombia to review potentialities and recommend both policies and implementing steps. The seven-man Mission spent three months in Colombia in 1955. The report proper is presented under the following main headings: Introduction and Principal Recommendations; Colombian Agriculture Today; Land Availability for Future Agricultural Development; Intensification of Production – Land, Water Control, Technological Improvements; Livestock; Farm Credit; Marketing and Prices; Foreign Trade in Relation to Agriculture; Agricultural Research, Extension and Education; Organization; and Implementation of the Program. The textual appendices add technical details on agricultural statistics, opening of new lands, water control and use, a pilot project for the Llanos Orientales, livestock projects, forestry, prices and marketing, farm credit and the Caja de Credito Agrario, and capital formation in agriculture. The nineteen specific recommendations include revision of land taxation and tenure systems to encourage crop raising on land suitable for it, country-wide land classification under the supervision of the Instituto Geografico de Colombia Agustin Codazzi, adequate agricultural statistics, education, research and extension. The report stresses that long term measures are most significant and that the need for capital is less critical than the need for sound and skillful management, properly trained labor, and government-provided guidance, support, protection and incentives.

The Teaching of Geography. G. H. Gopsill. St. Martin's Press, New York, and Macmillan, London. 1956. x 316 pp. $5.00

In the foreword to this book Prof. Norman Haycocks points out that "The purpose of a book on teaching method is not to remove the need for thought, but to provide the material and the ideas which will provoke thought and further study." The author, Lecturer in Education at the University of Nottingham, voices in his introduction his "conviction that children find their principal satisfaction in geography when they . . . get to grips with things as they really exist, and that teaching is most . . . successful when . . . teachers encourage and direct . . . an attitude of enquiry and critical appraisal." The book proceeds in that framework, demonstrating in its own organization the progression from simpler to more complex concepts that the text advises and describes. The author describes in detail the purpose and sequential arrangement of exercises that, in his experience, do lead to "enquiry and critical appraisal." It is the sort of book one wishes one's own teachers along the line had read.

Canadian Maps, 1949 to 1954. Bibliographical Series No. 16. Geographical Branch, Dept. of Mines and Technical Surveys. Ottawa, Canada. 1956. vii and 82 pp. 50 cents

This is a separate publication of the information supplied for the *Bibliographie Cartographique Internationale.* Part I covers selected maps of Canada and its political divisions published by federal and provincial governments and others. Part II lists map sheets of various federal topographical series either first published or revised during the period. Detailed geological maps, hydrographic charts and certain special subject maps of limited areas are not included.

Maps, Their Care, Repair and Preservation in Libraries. rev. edn. Clara Egli LeGear. Map Division, Reference Dept., Library of Congress. Washington. 1956. ix and 75 pp. For sale by Card Division, Library of Congress, Washington 25, D.C. 65 cents. Subscribers to the card service may charge to their card accounts. Others must pay in advance by check or money order made payable to Chief, Card Division.

Practically every aspect of the treatment and handling of maps is covered succinctly in this booklet. While addressed primarily to map librarians, it is also pertinent to the problems encountered by individual geographers in maintaining personal map collections. A twenty-page bibliography is appended.

Fizycna Mapa Polski, Centralny Urzad Geodezji i Kartografii, Warszawa. 1955. 1:2,000,000.

This Physical Map of Poland was "worked out" by Michel Janiszewski and published in color by the Central Office of Geodesy and Cartography, State Cartographic Production Enterprise.

Major physical features are shown and named with elevation from below sea level to over 1,800 meters portrayed by 15 colors. Streams are in heavy black; other hydrographic features in blue. Mountain peaks and passes are symbolized and their elevations given.

Names, except surrounding country names, are all printed in black. Different sized towns and cities are shown in different sized type; rivers and hydrographic features in different font.

The following cultural features are included: populated places of 10,000 and over, classified and differentiated by five symbols; national boundary, reflecting de facto provisional Polish administration; province (wajewodztew) boundaries and names; standard and narrow gauge railway network in red; and canals.

---Richard N. Hall

Man's Role in Changing the Face of the Earth. William L. Thomas, Jr., editor. University of Chicago Press. 1956. xxxviii and 1,193 pp. $12.50

This is a tremendous book, the record and papers of an international symposium held in Princeton, New Jersey, in June 1955 under the sponsorship of the Wenner–Gren Foundation for Anthropological Research. The co-chairmen were Carl O. Sauer, Marston Bates, and Lewis Mumford. The seventy participants, "selected for their common interest and curiosity about what man has been doing to and with his habitat," represented a wide range of disciplines and countries. Nearly a third were geographers. They met for a week, with two three-hour discussion sessions a day except on Sunday, the papers having been distributed in advance. After the idea was conceived by William L. Thomas, Jr., of the Wenner–Gren Foundation there followed nearly three years of planning, conferences and preparations. After the symposium another year was required to publish the volume.

The subjects and chairmen of sessions were: RETROSPECT – *Man's Tenure of the Earth* – F. Fraser Darling; *Subsistence Economies* – Alexander Spoehr; *Commercial Economies* – Paul B. Sears; *Industrial Revolution and Urban Dominance* – Kenneth Boulding; PROCESS – *Techniques of Learning: Their Limitations and Fit* – Edgar Anderson and Sol Tax; *Changes in Physical Phenomena* – Alan M. Bateman; *Changes in Biological Phenomena* – Marston Bates; PROSPECT – *Limits of the Earth: Materials and Ideas* – Joseph H. Willits and Lester E. Klimm; *Man's Self-Transformation* – Lewis Mumford; *The Unstable Equilibrium of Man in Nature* – Harrison Brown. Carl Sauer, Marston Bates, and Lewis Mumford summarized RETROSPECT, PROCESS, AND PROSPECT, respectively, in the closing session.

Publication of the volume was made possible by a grant-in-aid from the National Science Foundation. A critical review will appear subsequently in the *Annals* of the AAG.

This Growing World: Economic Development and the World Bank. Robert L. Heilbroner. Public Affairs Committee, Inc., New York. 1956. 28 pp. Available from Public Affairs Pamphlets, 22 E. 38th St., New York 16, New York 25 cents

This little pamphlet presents in popular style the functions, philosophy and accomplishments of the World Bank, placing in perspective its role in improving the lot of human beings all over the world.

The Water Balance. C. W. Thornthwaite and J. R. Mather. Publications in Climatology, Vol. VIII, no. 1. Laboratory of Climatology. 1955. For sale by F. G. Slentz, Route 1, Centerton, N. J. $2.50

This publication deals with the concept of evapotranspiration and water balance, with the significance of the various factors in water balance in various lines of research, and with the practical application of such research in a number of different ways.

Previously published material and the results of new investigations are brought together in one up-to-date volume. Instructions, tables and nomograms to facilitate water balance computation are appended.

Date.....

The Secretary, Association of American Geographers:

I wish to apply for membership in the Association of American Geographers and submit the following information to support my application:

☐ Associate (Annual dues $7.50)

Persons who are actively interested in the objectives of the Association but who do not meet the qualifications for Membership, as below. Please provide data in the blanks below as fully as it applies in your case.

☐ Member (Annual dues $10.00)

Mark only one square but supply data on all lines that apply to your situation.

☐ A. A graduate degree in GEOGRAPHY (or equivalent education).

Degree(s), date(s) and institution(s).....

.....

Title(s) of Thesis(es).....

.....

Department(s) in which written.....

Person(s) who supervised thesis(es).....

.....

.....

☐ B. An undergraduate degree with a major in GEOGRAPHY and at least two years' full-time service as a professional geographer.

1. Undergraduate Work
   Degree, date and institution .....
   Major subject .....
   Number of Geography courses and total number of quarter or semester hours (specify which) .....
   .....
   Name of Geography teachers .....
   .....
2. Graduate work completed
   Institution(s) and date(s) .....
   Subjects taken and total number of hours in Geography (specify whether quarters or semester hour(s) .....
   .....
3. Professional experience as a Geographer
   Title(s) of position(s) .....
   Unit, bureau, agency, firm, department or school in which located with dates .....
   .....
   Name(s) of supervisor(s) .....
   .....
   Nature of work .....
   .....

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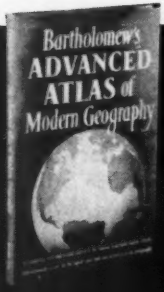

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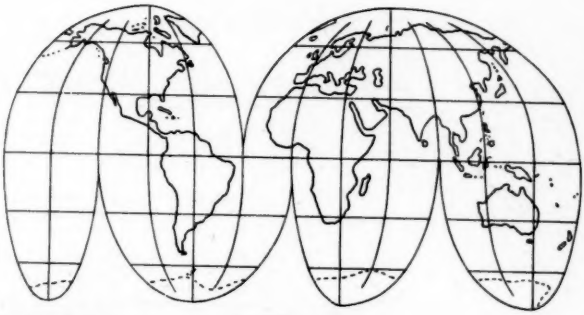

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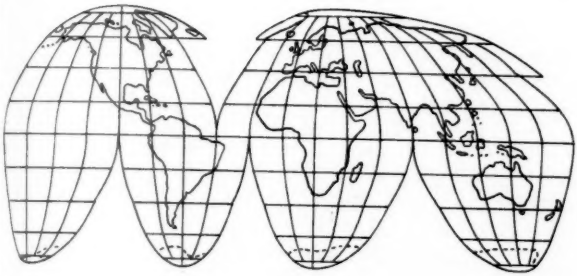

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